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Tetramerism in Narcissus

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The six-parted perianth in the genus Narcissus and the rest of the Liliales is so common that any marked deviation therefrom is worthy of notice. This trimerous perianth normally consists of two cycles of 3 parts each, the corona, two sets of three stamens and a tricarpellate gynecium.

In the spring of 1944, there came to the attention of the author a number of specimens of this genus in which, instead of the usual series of 3's, there were 2 cycles of 4 perianth parts, 2 sets of 4 stamens and a 4-parted gynecium, a 4 lobed stigma and 4 loculed ovary.

The source of the plants was sought out and located in an old flower bed in Rogers, Arkansas, where the lack of any care for many years had resulted in serious crowding of the bulbs and plants. In some spots there was nearly 50% of this tetramerism but in others all the flowers were normal.

Naturally, the question arose as to whether or not that was an event of a single season, or whether it might be recurrent.

To answer this question the same old garden was visited in succeeding spring blooming seasons and the recurrence of the condition noted. Some clumps of bulbs were dug, and transplanted to the writer's garden. Here they produced the same kinds of flowers in each succeeding year. Later similar tetramerous specimens of apparently the same variety appeared in other parts of Rogers and Bentonville.

The accompanying figure (Fig. 1) shows the tetramerous flower to compare with the normal.

Note: As this paper is going to press in the spring of 1950, it might be added that in the transplanted plants the ratio of abnormal to normal flowers was considerably lower than in past years. This may be due to the fact that they are not so crowded, or there may be some other explanation. Further observations will be continued.